

## DEPARTMENT OF VETERANS AFFAIRS

### Justification and Approval (J&A) For Other Than Full and Open Competition

Acquisition Plan Action ID: VA259-16-AP-2510

1. **Contracting Activity:** Department of Veterans Affairs, NCO 19, for the Salt Lake City VA Medical Center Gait Lab. Purchase request #660-16-2-984-0041.
2. **Nature and/or Description of the Action Being Processed:** This procurement is for a new, firm-fixed price, brand name contract for Gait Lab motion capture equipment. In accordance with Federal Acquisition Regulation (FAR) 11.105(a)(1), the particular brand name, product, or feature is essential to the Government's requirements, and market research indicates other similar products, do not meet, and cannot be modified to meet, the agency's needs.
3. **Description of Supplies/Services Required to Meet the Agency's Needs:** The equipment is required to support the Salt Lake City VAMC Gait Lab. The Gait Lab is specifically designed to assist and assess Veterans with prosthetic limbs. The overall dollar value of the proposed contract is \$332,083.05.

#### Hardware:

- I. Vicon Vantage V16 – Standard
  - i. 16 megapixel sensor @120 frames per second (FPS) at full frame
  - ii. Standard FOV package with 18mm lens and 56 degree secondary optics
  - iii. 22 high-powered IR LED strobe @850nm
- II. Vicon Vantage V16 – Wide
  - i. 16 megapixel sensor @120 FPS at full frame
  - ii. Standard FOV package with 12.5mm lens and 70 degree secondary optics
  - iii. 22 high-powered IR LED strobe @850nm
- III. Bonita 720c Video Camera
  - i. Color reference video camera
  - ii. 120 FPS
  - iii. 720p
  - iv. Four 12mm lenses
- IV. Vicon Camera Cable
  - i. 30m
  - ii. With Ferrite for use with Vantage and Bonita cameras
- V. Lock+
  - i. Vicon's control box for connecting, integrating and synchronizing 3<sup>rd</sup> party devices with the Vantage and Bonita systems
  - ii. 64 channel ADC
  - iii. Timecode
  - iv. Gunlock
  - v. VESA support
  - vi. 5m cat 5e data cable

- VI. D-15 M
  - i. Locks Omnimate Signal Connector
  - ii. 3.5mm cable
  - iii. Suitable for Kistler 9865E charge amp
- VII. Vicon Active Wand IR
  - i. 5-point calibration wand with IR and VR LEDs
  - ii. Calibrates optical cameras
  - iii. Required for reference video

Peripherals:

- VIII. 16 Port PoE+ Gigabit Switch
  - i. 5m cat 5e data cable
- IX. Dual Video PC
  - i. CTO Base Dell Precision Tower T5810 685W Chassis Intel Xeon Processor E5-1620 v3 (Four Core HT, 3.5GHz Turbo, 10MB), 16GB (4x4GB) 2133MHz DDR4 ECC RDIMM 2x2TB 3.5" Serial ATA (7,200Rpm) hard drive Non-RAID 8x slimline DVD+/-RW Drive 2GB NVIDIA Quadro K620 (DP, DL-DVI-I) (1DP to SL-DVI adapter)
  - ii. Logitech MK710, wireless keyboard and fast-scrolling mouse
  - iii. Windows 7 Professional (64Bit Windows 8 License, Media) English
  - iv. Set up and pre-configured by Vicon to support capture from 2 Bonita video sources
  - v. 3yr Basic Warranty-next business day, 3yr Minimum Warranty-next business day on-site service
  - vi. Bracket for HDs in 5.25" Optical Bay to support 2x2.5" Hard Drive 1 off Corsair Neutron GTX CSSD 240 GB 2.5" 1 off Intel Ethernet I350 T4 server adapter RJ45 PCIE
- X. Large PC Monitor
  - i. VGA, DVI, DP
- XI. Custom Speedrail System
  - i. Large 40'x40'
- XII. 90 Degree Manfrotto Double Super Clamp Kit
  - i. Tri-bog-035, 2 packs
  - ii. Tri-bog-037, 1 pack
  - iii. Tri-bogn-20" ex, 1 pack
  - iv. Hdw ¾" #10scr, 4 packs
- XIII. Super Clamp
  - i. Manfrotto 035 Super Clamp with 037 stud
  - ii. Securely attach a camera mounting head to a rail
- XIV. Standard Tripod Head
  - i. Manfrotto 804 RC2
  - ii. Standard 3-way camera head with quick release
- XV. Small Tripod
  - i. Manfrotto MT055XPRO3 Light Duty Tripod
  - ii. Max height 5.6"
  - iii. For Bonita Video Camera
- XVI. Microball Head
  - i. Manfrotto 492 Microball camera mounting head
  - ii. Max weight 4.4lbs.
  - iii. For Bonita Video Camera

Markers, Suits and Kits:

- XVII. Basic Life Science Accessory Kit
  - i. 50x9.5mm hard markers on plastic bases

- ii. 50x14mm hard markers on plastic bases
- iii. 5 roll of double sided tape
- iv. 5 rolls of Micropore tape
- v. Scissors
- vi. Marker repair kit
- vii. Seca measuring tape for circumferences
- XVIII. Extended Life Science Accessory Kit
  - i. Two headbands
  - ii. Four wristbands
  - iii. Four 100mm wrist bars
  - iv. Eight base pads for marker wands
  - v. Eight mobile joint packs
  - vi. Eight fixed joint packs
  - vii. One 385mm bar
  - viii. Eight threaded inserts for the tubing
  - ix. One pair of calipers

Software:

- XIX. Vicon Nexus 2.0 Network
  - i. Used for system calibration, data capture, data export, post-processing and analysis
  - ii. Real-time reconstruction engine for cleaner data, searchable database tools, automated labeling, batchable gap filling, open source models, smart monitors and functional calibration options
  - iii. Accepts and maintains digital signals for 3<sup>rd</sup> party devices through the Vicon Digital Device Plugins
  - iv. Ability to support up to 4 frame-synchronized and calibration HD Bonita Video cameras for live video overlay, playback, and export
  - v. Includes plug-in gate
- XX. Polygon 4 Network
  - i. Reporting and presentation tools
  - ii. Intuitive time-saving features for reporting, teaching, and presenting
  - iii. Able to review and annotate data in the same space using data tags, and compare data with native video overlay
  - iv. Single 10 seat license, installed as a network license server
- XXI. Vicon BodyBuilder
  - i. Create biomechanical models and run them in Nexus

Warranty and Services:

- XXII. Warranty
  - i. 14 month from date of shipment
  - ii. Unlimited phone, email and web troubleshooting tech support
  - iii. Software maintenance releases
  - iv. Access to Vicon forum, online help file and videos, Remote Assisted Training Services, and unlimited access to Vicon Online University Classes
  - v. Parts and labor
  - vi. Vicon covers the collection/return shipping costs of repaired equipment
  - vii. Overnight shipping of new replacement item on all current release Vicon products
- XXIII. Installation and Training
  - i. 4 days with a Vicon engineer, per day, all travel expenses included.
  - ii. Note: Vicon is not responsible for installing wall mounts or rail mounting systems for cameras. If applicable, these must be installed prior to Vicon's arrival.

**4. Statutory Authority Permitting Other than Full and Open Competition:**

- (1) Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements per FAR 6.302-1;
- (2) Unusual and Compelling Urgency per FAR 6.302-2;
- (3) Industrial Mobilization, Engineering, Developmental or Research Capability or Expert Services per FAR 6.302-3;
- (4) International Agreement per FAR 6.302-4
- (5) Authorized or Required by Statute FAR 6.302-5;
- (6) National Security per FAR 6.302-6;
- (7) Public Interest per FAR 6.302-7;

The authority for applying the Commercial Test Program of FAR 13.5 is (Section 4202 of the Clinger-Cohen Act of 1996) and is implemented by for restricting competition on this procurement via FAR 13.106-1(b)(2).

**5. Demonstration that the Contractor's Unique Qualifications or Nature of the Acquisition Requires the Use of the Authority Cited Above (applicability of authority):**

The Salt Lake VA Medical Center (VAMC) is currently collaborating on research projects with Gait Labs at other VA Medical Centers, Universities and non-VA medical centers. The collaboration has worked well due to the fact that all the labs are using Vicon motion capture systems. The motion capture system must be compatible with the Bertec force platform and force treadmill system that is in place at the Salt Lake VAMC Gait Lab. The use of a different motion capture system would result in ineffective collaboration and potential discrepancies in data consistency and formatting. The ineffective collaboration and data discrepancies would result in significant increases in both time and money, therefore a Brand Name only solicitation for a Vicon motion system will be issued to meet the Government's needs.

Accordingly, Vicon Motion Systems, Inc. is the sole manufacturer of the equipment described in Section III above. The use of Vicon equipment is necessary to avoid the Veteran's Health Administration from experiencing substantial duplication of cost that could not be expected to be recovered through competition.

The Vicon system has six files present during a capture and the file formats are native to their system. The extensions of the file types and descriptions are as follows:

- I. .x1d file: Contains all the analog data (force plate, treadmill, EMG, etc.) for the capture.
- II. .x2d file: Contains all of the trajectory data from the markers used in the capture.
- III. .mkr file: Contains the names of the markers used in the capture.
- IV. .xcp file: Contains the calibration settings for the capture.
- V. .system file: Contains the system settings and positions of the cameras, force plates, EMG, treadmill, etc. used in the capture.
- VI. .vsk file: Contains the calibrated subject file with marker names, and anthropometric data from the capture.

The Vicon Nexus then reads all of the above files and reconstructs them to put them into a .c3d file; non-Vicon Nexus software can read .c3d files. To be compatible the system must read all the native file extensions recorded (.x1d, .x2d, .mkr, .xcp, .system, and .vsk). Rebuilding the data from the original source is not possible without being able to read the native file types produced by Nexus. The ability to read the original data file is absolutely necessary in many scenarios. One reason includes if the data from a capture was filtered at an inappropriate cutoff frequency or the

reconstruction parameters were set incorrectly the .c3d file would not contain the data that was useful. In this scenario, the data from the native (.x1d, .x2d, .mkr, .xcp, .system, and .vsk) files would need to be used to reconstruct the .c3d file. All the collaborating gait labs use the Vicon system and therefore can reconstruct the .c3d file from the original data files without having to get the Salt Lake gait lab to reconstruct and re-send the file, saving valuable time.

6. **Description of Efforts Made to ensure that offers are solicited from as many potential sources as deemed practicable:** Sources sought synopsis #VA259-16-Q-0242 was issued on March 11, 2016. The sources sought synopsis listed all the required equipment and was issued requesting feedback from all vendors, large and small. One additional small business replied, but didn't provide documentation that their system can read the native Vicon Nexus files.
7. **Determination by the Contracting Officer that the Anticipated Cost to the Government will be Fair and Reasonable:** The requirement will be posted on [www.fbo.gov](http://www.fbo.gov), as brand name specific, to solicit competition from any and all distributors of Vicon Motion Systems products. Competition will allow for the distributors to give their best price. Vicon Motion Capture products were purchased in June of 2014 on purchase order #VA259-14-P-4439, for the Denver VAMC to conduct research in lower limb prosthetic biometrics.
8. **Description of the Market Research Conducted and the Results, or a Statement of the Reasons Market Research Was Not Conducted:** Research was conducted by doing an internet search for Gait Research programs at some of the collaborating labs. It was confirmed that the research programs do use Vicon Motion Systems. A search on VA NAC and GSAAAdvantage! Did not find any existing contracts for the required equipment. NASA SEWP, AbilityOne and FPI do not offer this type of equipment. A search of FPDS-NG returned FY14 PO #VA259-14-P-4439; the PO was to purchase Vicon cameras and equipment for the Denver VA Medical Center. A sources sought notice was posted to [www.fbo.gov](http://www.fbo.gov) to give vendors a chance to indicate they distribute Vicon equipment or if they have an equal system that will seamlessly integrate with the Vicon systems at the other Gait Labs that are collaborating with the Salt Lake VA Medical Center.  
  
As described in Section VI above, market research, in accordance with FAR Part 10, was conducted by synopsis of the proposed acquisition, advising industry of the pending acquisition and soliciting inquiries from interested parties.
9. **Any Other Facts Supporting the Use of Other than Full and Open Competition:** Prosthetic research is a priority for Veterans health care. It requires the analysis of complex biomechanical processes using highly specialized motion capture systems. The new Salt Lake VA Medical Center Gait Lab will be providing the necessary assessment and analysis services to Veterans with prosthetic limbs.
10. **Listing of Sources that Expressed, in Writing, an Interest in the Acquisition:** [Redacted]
11. **A Statement of the Actions, if any, the Agency May Take to Remove or Overcome any Barriers to Competition before Making subsequent acquisitions for the supplies or services required:** For future purchases, market research will be conducted to analyze system compatibility and to identify new potential sources.
12. **Requirements Certification:** I certify that the requirement outlined in this justification is a Bona Fide Need of the Department of Veterans Affairs and that the supporting data under my cognizance, which are included in the justification, are accurate and complete to the best of my knowledge and belief. [Redacted]